

**PRACTICE WITH IDENTIFYING SOLUTIONS TO EQUATIONS AND INEQUALITIES**

State whether the given value is a solution to the equation or inequality. Write YES or NO.

**CHALLENGE:** If the value is not a solution, can you determine which value(s) would be a solution?

1.  $5x - 8 = 18 + 4$ , for  $x = 6$

2.  $4x^2 - 5(5) = 12$ , for  $x = 3$

3.  $(8 - n)^2 + 13 \geq 23$ , for  $n = 3$

4.  $17x - 8(2x - 4) > 32$ , for  $x = 3$

5.  $2x + 12 + 8x > 32$ , for  $x = 2$

6.  $6(3x - 2) + 5 < 50$ , for  $x = 3$

Test each value in the 'Replacement Set' column to determine if the values are solution(s) to the given equation/inequality. Be sure to list all numbers that work to make the statement true. There may be 1, more than one, or no solutions to each. \*\* Do your work on notebook paper.

Equation	Replacement Set	Solution(s)
7. $5x + 2 = 17$	{1, 2, 3, 4}	
8. $3x - 2 > 4$	{2, 3, 4, 5}	
9. $2x^2 + 4 = 54$	{1, 3, 5, 7}	
10. $7x - 7 < 30$	{2, 4, 6, 8}	
11. $2(2x + 4) > 20$	{3, 5, 6, 9}	
12. $5x - 6 = 24$	{1, 2, 3, 4}	